

ACCOUNTABILITY AND VISIBILITY OF EQUIPMENT IN THE DOD SECTOR

BY

United States Army National Guard

DISTRIBUTION STATEMENT A:

Approved for Public Release.
Distribution is Unlimited.

USAWC CLASS OF 2008

This SSCFP is submitted in partial fulfillment of the requirements imposed on Senior Service College Fellows. The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.



U.S. Army War College, Carlisle Barracks, PA 17013-5050

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY)	2. REPORT TYPE	3. DATES COVERED (From - To)
01-04-2008	Civilian Research Project	
4. TITLE AND SUBTITLE		5a. CONTRACT NUMBER
Aggaratability and Wigibi	ility of Equipment in the DeD Coston	5b. GRANT NUMBER
Accountability and visib	ility of Equipment in the DoD Sector	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)		5d. PROJECT NUMBER R0536
LTC Masaki G. Kuwana, ARNG		5e. TASK NUMBER
		5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAM	E(S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT NUMBER
The Institute of Advanced	d Technology	
The University of Texas a	at Austin	
3925 West Braker Lane, Su	uite 400	
Austin, Texas 78759-5316		
9. SPONSORING / MONITORING AGEN	CY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
Robert D. Riffle, Program	m Advisor	
The Institute of Advanced	d Technology	
The University of Texas a	11. SPONSOR/MONITOR'S REPORT	
3925 West Braker Lane, Sı	NUMBER(S)	
Austin, Texas 78759-5316		
42 DICTRIBUTION / AVAILABILITY CT	ATEMATAIT	

12. DISTRIBUTION / AVAILABILITY STATEMENT

DISTRIBUTION A: UNLIMITED

13. SUPPLEMENTARY NOTES

The views of the academic research paper are those of the author and do not necessarily reflect the official policy or position of the U.S. Government, the Department of Defense, or any of its agencies.

14. ABSTRACT

This paper provides the Department of Defense (DoD) an analysis of equipment accountability and management in the procurement process. The continuing saga of money being spent and equipment still being short, invisible, or the inability to account for the equipment are all problems facing this nation. Congress continues to focus and spend money on badly needed equipment only to have the same requests come forward again year after year. The purpose of the budget is to create and maintain the nation's ability to provide badly needed equipment for the troops in combat. When funding requests for equipment are sent to Congress, they approve the need and provide funding. However, all too often, the same funding request is submitted the following year. The majority of the time, Congress again provides the funds and holds the military accountable for neither the equipment nor the money spent. Processes and procedures are in place to acquire equipment, yet many of these are altered to accommodate the needs of the Soldier; therefore, the accountability (or lack of accountability) is in bad need of revamping. The integrity of the data and the ability of the databases to interface with each of the Services are key issues in providing the financial reporting necessary. This paper examines the processes involved in acquiring money for the equipment, the procedures for providing the equipment, and the accountability for the equipment. Analysis provides the scope of changes needed in DoD's acquisition policy. The changes, if implemented, will need follow-on examination and possibly future research to completely modify and provide the correct methods required for adequate accountability of DoD procured equipment.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION	18. NUMBER	19a. NAME OF RESPONSIBLE PERSON
			OF ABSTRACT	OF PAGES	Robert D. Riffle
a.REPORT UNCLASSIFED	b. ABSTRACT UNCLASSIFIED	c. THIS PAGE UNCLASSIFED	UNLIMITED	17	19b. TELEPHONE NUMBER (include area code) (512) 232-4560

USAWC CIVILIAN RESEARCH PAPER

ACCOUNTABILITY AND VISIBILITY OF EQUIPMENT IN THE DOD SECTOR

by

Lieutenant Colonel Masaki G. Kuwana United States Army National Guard

Mr. Robert Riffle Program Adviser The University of Texas at Austin

Disclaimer

The views expressed in the academic research paper are those of the author and do not necessarily reflect the official policy or position of the US Government, the Department of Defense, or any of its agencies.

U.S. Army War College CARLISLE BARRACKS, PENNSYLVANIA 17013

ABSTRACT

AUTHOR: LTC Masaki G. Kuwana

TITLE: Accountability and Visibility of Equipment in the DoD Sector

FORMAT: Civilian Research Paper

DATE: 1 April 2008 WORD COUNT: 7,020 PAGES: 17

CLASSIFICATION: Unclassified

This paper provides the Department of Defense (DoD) an analysis of equipment accountability and management in the procurement process. The continuing saga of money being spent and equipment still being short, invisible, or the inability to account for the equipment are all problems facing this nation. Congress continues to focus and spend money on badly needed equipment only to have the same requests come forward again year after year. The purpose of the budget is to create and maintain the nation's ability to provide badly needed equipment for the troops in combat. When funding requests for equipment are sent to Congress, they approve the need and provide funding. However, all too often, the same funding request is submitted the following year. The majority of the time, Congress again provides the funds and holds the military accountable for neither the equipment nor the money spent.

Processes and procedures are in place to acquire equipment, yet many of these are altered to accommodate the needs of the Soldier; therefore, the accountability (or lack of accountability) is in bad need of revamping. The integrity of the data and the ability of the databases to interface with each of the Services are key issues in providing the financial reporting necessary. This paper examines the processes involved in acquiring money for the equipment, the procedures for providing the equipment, and the accountability for the equipment.

Analysis provides the scope of changes needed in DoD's acquisition policy. The changes, if implemented, will need follow-on examination and possibly future research to

completely modify and provide the correct methods required for adequate accountability of DoD procured equipment.

TABLE OF CONTENTS

ABSTRACT	iii
TABLE OF CONTENTS	v
ACKNOWLEDGMENTS	vii
LIST OF ILLUSTRATIONS	ix
LIST OF ACRONYMS AND ABBREVIATIONS	xi
Introduction and Problem Statement	1
History	1
The Strategic Context	1
The Funding Process	3
The Critical Need to Account for the Funding	6
Recommendations	9
Develop and Implement an Accounting Strategy	9
Change the Process for the Funding	13
Provide Guidance and Policy	13
Synchronize the Procurement Process	14
Improve the Accountability of Funds Spent	15
Synchronize All Components of the Army	16
Conclusion	17
Endnotes:	18



ACKNOWLEDGMENTS

This paper is the result of the author's Army War College Fellowship at the Institute for Advanced Technology at The University of Texas at Austin.



LIST OF ILLUSTRATIONS

Figure 1. GDP Percent of Funding	2
Table I. Funding Example	5



LIST OF ACRONYMS AND ABBREVIATIONS

AC Active Component

ACH Advanced Combat Helmet

ARNG Army National Guard

BES Budget Estimate Submission

BTA Business Transformation Agency

COTS Commercial Off-The-Shelf

DoD Department of Defense

EA Enterprise Architecture

EDI Electronic Data Interchange

GAO Government Accounting Office

GCSS-Army Global Combat Support System-Army

GDP Gross Domestic Product

GFEBS General Fund Enterprise Business System

GPS Global Positioning Systems

IBA Interceptor Body Armor

JCS Joint Chiefs of Staff

LIW Logistics Information Warehouse

LMD Logistics Master Data

LMP Logistics Modernization Program

MNF-I Multi-National Force-Iraq

MNSTC-I Multi-National Security Transition Command–Iraq

OMB Office of Management and Budget

OSD Office of the Secretary of Defense

PBUSE Property Book Unit Supply Enhanced

PDM Program Decision Memorandum

PM Program Managers

POM Program Objective Memorandum

RFI Rapid Fielding Initiative

RFID Radio Frequency Identification

SLRG Senior Level Review Group

TACOM Tank-automotive and Armaments Command

TAV Total Asset Visibility

UID Unique Identifiers

USAR United States Army Reserve

USPFO United States Property and Fiscal Office

XML eXtensible Markup Language

ACCOUNTABILITY AND VISIBILITY OF EQUIPMENT IN THE DOD SECTOR

Introduction and Problem Statement

The military has long been the center of gravity for many of the situations around the world. Many of today's top leaders around the country are persuaded into diplomacy because of the presence of the strong US military force. The world leaders sit up and take notice when the President speaks because they know he has the power to back up what he says with the military if needed. The US military is the strongest force today because of its superior leaders and technologically advanced equipment. The equipment is technologically superior because of the dollars spent on constant upgrade. The need to keep the equipment superior is essential to maintaining the US strategic dominance. The dollars needed in the budget to maintain the dominance, both now and in the future, are essential for the welfare of the troops and their families. The purpose of the budget is to create and maintain the nation's ability to provide the badly needed equipment for the troops in combat. The requests come in and the Congress approves the need and provides money. The next year some of the identical request comes in and is asked for again, the majority of the time, the Congress again provides the funds and does not hold the Department of Defense (DoD) accountable for the audit (or the lack thereof) and the accountability for the equipment and money spent.

History

The Strategic Context

"The DoD established a goal to achieve total asset visibility (TAV) over 30 years ago." DoD recognized the importance of TAV and the need to accurately report the information. The ability of Congress to provide funding for the military is an important role they have been performing for many decades. The dollars in the budget for equipment are part of the overall strategy for the budget; each year Congress provides a limited amount of funds for each of the Services for their badly needed equipment. During "World War II the amount of dollars in the budget for the DoD was thirty six percent of the Gross Domestic Product (GDP), Vietnam had eight percent of the GDP,

and in 2005, they were only funded at about four percent of the GDP."² "The Army had \$5.8 B in 2005, \$28.9 B in 2006, \$38.9 B in 2007, and \$55.2 B in 2008"³ for the procurement of needed equipment. All these amounts include both the Army National Guard and the Army Reserve. The spending is significantly increased mainly because of the poor condition of Army equipment and the major conflicts in Iraq and Afghanistan. "According to the Office of Management and Budget (OMB), defense spending is expected to decline from 4.1 percent of GDP in 2006 to 3.1 percent in 2011."⁴ Figure 1 shows the comparison of congressionally mandated funding provided during each of the periods.

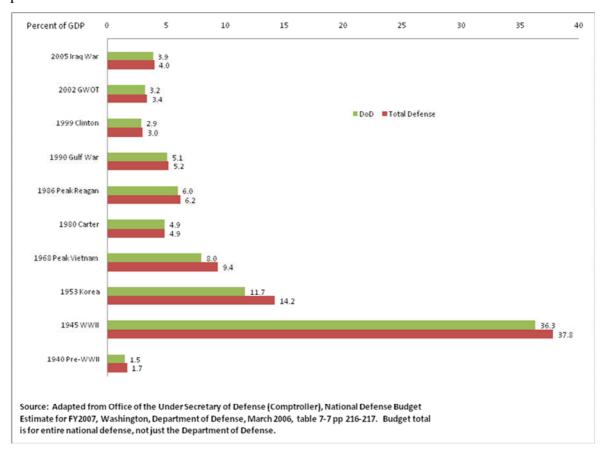


Figure 1. GDP percent of funding.

The strategic context of the funding was and is an important factor in maintaining the modernization of DoD equipment. Ships for the Navy, aircraft for the Air Force, tanks for the Army, and light-armored vehicles for the Marines are all important reasons

for the strategy of the Congress and the nation to emphasis the constant modernization of military equipment. The funding strategy cannot be over-emphasized and will lead to a proper funding process by each of the Services.

The Funding Process

The funding processes for each of the Services are similar. Each of the "Services prepares and submits their programming proposals in the form of the Program Objective Memorandum (POM)." The "POM includes an analysis of missions, objectives, alternative methods to accomplish objectives, and allocation of resources." The Services use this process to determine the amount of resourcing or funding needed to procure the equipment for the essential needs of the military.

POM is reviewed by program review teams comprising members from the military departments, Joint Chiefs of Staff (JCS), defense agencies, and OSD staff. The results of this review are presented to the Senior Level Review Group (SLRG) for discussion. In addition, the Joint Chiefs conduct a concurrent checks-and-balances review of POM, focusing on the balance and capabilities of the proposed forces levels. Both reviews are presented to the Secretary of Defense prior to his/her decisions in the Program Decision Memorandum (PDM) The Army.⁷

Each of the Services analyzes their data to determine if the request is justified. The Services must then "undergo a significant amount of scrutiny, which may result in the realignment of resources within their Service." Once the Services are finished reviewing and have the resources either aligned or realigned, they are able to prepare the Budget Estimate Submission (BES). The BES is submitted to the Office of the Secretary of Defense (OSD) and Office of Management and Budget (OMB) for their review. Once they receive all the different Services' submissions and are finished reviewing them, they prepare and "issue Program Budget Decisions (PBDs) to modify the BES as appropriate, is the baseline for the DoD budget, which becomes part of the President's Budget submitted to Congress."

The funding is appropriated after the House and Senate mark each of the funding lines and then deliberate to determine the amount of funds to be appropriated. "Once the appropriations bill is signed, the Treasury issues Treasury Warrants and the OMB apportions congressional appropriations to DoD. The DoD Comptroller then allocates

funds to the Components." The apportionment of the funding to each of the components allows them to write contracts and allow the Program Managers (PM) to execute their programs with the plan on how and when they will use the funds. The planned use of the funds are monitored by the OSD Comptroller and if the program is not progressing as planned, the funding can be reprogrammed to other programs that are short and needs additional funding.

The apportionment of funds in the plan can be used for up to three years, it is "referred to such budget authority as multi-year budget authority or, specifically, as two-year budget authority, three-year budget authority, and then an additional two years are available to actually get the piece of equipment into the field." The amount of time from the start of the appropriated dollars to fielding the piece of equipment could be as long as five years as shown in Table I. There are also funds appropriated because of an urgent need that cannot wait for the normal POM submission. These are called *supplemental appropriations*. "Supplemental appropriation means an appropriation enacted subsequent to a regular annual appropriations act, when the need for funds is too urgent to be postponed until the next regular annual appropriations act." Supplemental appropriations are normally executed within one year and provide equipment rapidly. The urgency of the use of supplemental appropriations provides the needed equipment as soon as it can be provided off of the equipping lines, and is for priority-needed items that cannot wait, otherwise they would be part of the normal POM submission.

The President's Budget and supplemental appropriations can and do procure some of the same items. The supplemental appropriations and the President's Budget have to be executable, the dollars appropriated require that the maximum number of widgets are not restrained and can produce as many as expected for the amount of the appropriated funds. The amount of funds cannot exceed the quantity of widgets produced for the total amount of appropriated funds. The funding in the President's Budget could provide dollars in one year that carries over for as many as five years as shown in Table I.

Table I. Funding Example

	2005	2006	2007	2008	2009
President's Budget	05 Funds	05/06 Funds	05/06/07 Funds	05/06/07/08 Funds	05/06/07/08/09 Funds
Fielding Numbers	0	10/0	20/10/0	30/10/0/0	40/20/10/30/0
Supplemental Appropriation	05 Funds	05/06 Funds	06/07 Funds	07 Funds	
Fielding Numbers	0	10/0	20/0	20	
Total Fielding Numbers	0	20	50	60	100

Table I also provides the basis for the problem. Big things like tanks, ship, and aircraft are easy to track because there is not a large quantity of these items, but when the items get smaller, like weapons, night vision devices, and protective masks, and the quantities are extremely high, the risk begins.

First, when the appropriation is received under congressional language it has to be spent on that piece of equipment. The intended dollars for various reasons are sometimes decremented, so if they thought they received an appropriation to purchase 500 pieces of equipment, the decremented dollars bring the total to 470. The decremented money could be reinstated if the funds are not needed for other more critical items throughout the year. So the next year they request the required amount or ask for the additional 30 that were decremented, but either way they may not be sure of the decrement until up to the fifth year when they are to receive the final amount. The total quantity is also convoluted with supplemental funding, congressional additions, and components own dollars, so when they thought they were receiving the total quantity of 500, it was actually part of another buy with supplemental or congressional add money. Second, the contract stet could give the military a quantity discount and make up the 30 that were decremented with the increase of the dollars in the supplemental or congressional addition. Third, the time delay for the equipment to be processed and accounted may take several months. The quantity of equipment being procured does not show up on the units books for several reasons, one that the unit is in the process of deploying and the information is not available, second, the equipment arrives in theater and does not get processed and the equipment is mishandled and put into a container for later use. Last, the equipment is needed and given to a sister Service, contractor, or a coalition Soldier, the time it takes to account for the property takes quite a while and for the contractor or coalition Soldier may not happen at all. The databases that are used by the Services are different and do

not synchronize the data, so if the Marines ask in the POM or supplemental for a weapon and the Army transfers the equipment, do the Marines continue to request the weapon or is the weapon decremented from their request and added to the Army request? Either way the shortage still exists for one of the Services. The limited funding and the process for the funding are not without faults, without an accounting of the funding, the strategy of the funding loses it focus and spirals into a black hole.

The Critical Need to Account for the Funding

In recent years, the DoD has received large amounts of money through supplemental funding that it has used to replace battle damaged equipment, reset fatigued equipment, and procure badly needed equipment to enhance the readiness of deploying units. The supplemental funding is likely to last as long as the military is involved in a major conflict. The essential dollars will continue to drop as the escalation of the conflict decreases. The need to spend the money wisely and efficiently is more important than ever as the percentage of the GDP drops from "4.1 percent of GDP in 2006 to 3.1 percent in 2011 as stated previously." The requirement for the amount of modernized equipment continues to increase and the price of the equipment will continue to rise each year. The drop in the funds and more money being directed towards the modern programs will make it essential and critical for the need to be able to account for the equipment.

The need for less-modern pieces of equipment is not diminishing, but the amount of funds being directed towards the more modern ships, aircraft, and future combat systems will take the majority of the dollars in the future POMs. The strategic relevance of the less-modern equipment continues; a lack of weapons, trucks and night vision will provide a crisis for the military. The Soldier is the priority and the need to properly equip them remains high. Accounting for the pieces of equipment is the only way to get the most property out of the dollars before the POM money dries up and is committed to the modern pieces of equipment. In theater the tracking of equipment is extremely difficult and the possible rate of loss at alarming numbers.

DoD and MNF-I cannot fully account for Iraqi forces' receipt of US-funded equipment. Two factors led to this lapse in accountability. First, MNSTC-I did not maintain a centralized record of all equipment distributed to Iraqi forces before December 2005. At that time, MNSTC-I established a property book

system to track issuance of equipment to the Iraqi forces and attempted to recover past records. GAO found a discrepancy of at least 190,000 weapons between data reported by the former MNSTC-I commander and the property books. Former MNSTC-I officials stated that this lapse was due to insufficient staff and the lack of a fully operational distribution network, among other reasons. Second, since the beginning of the program, MNSTC-I has not consistently collected supporting records confirming the dates the equipment was received, the quantities of equipment delivered, or the Iraqi units receiving the items. Since June 2006, the command has placed greater emphasis on collecting the supporting documents. However, GAO's review of the January 2007 property books found continuing problems with missing and incomplete records. Further, the property books consist of extensive electronic spreadsheets, which are an inefficient management tool given the large amount of data and limited personnel to maintain the system.¹⁴

The degree that the numbers are inaccurate are clues and signs that point towards varying degrees of inaccuracy in the way the accounting of equipment is being managed and the amount of equipment still required and needed in the POM. Accounting for the assets in each of the Services are all similar, the need is vital in order to ensure the equipment is available for the Soldier when needed. TAV is every commander's responsibility and therefore he or she is responsible for the accountability of the equipment. The quickest way for a commander to be relieved of command is to not have accountability of their equipment, yet in each of the last couple of conflicts, equipment flows into the theater of operation/mobilization sites so quickly and the rapid need to distribute the equipment, accountability goes out the window. Soldiers get the equipment and accounting is secondary, which leaves all the logistics personnel scrambling to account for what has already been provided. In many cases it takes years to find out what is in each of the containers of equipment. The commander or the accountability officer has been rotated a couple of times, so the inventories of the containers is not a high priority since they did not take possession of the equipment or possibly even have to take an inventory. During conflicts it is simple to write off missing equipment as destroyed or lost, possibly only to have the equipment remain in one of the containers of equipment. When a unit redeploys from theater, their equipment is loaded into containers and many times shipped back to the states, many of the commanders have already departed to their next assignments (by the time the equipment arrives and is inventoried). The deploying

units are required to leave many pieces of equipment in theater; most of the time there is a Department of the Army order that dictates what the units will leave in theater. The units are so anxious to depart that some of the equipment that is not on the Frago is left anyway and thus no record of the equipment exists for the proper transfer of equipment. This equipment many times loses its accountability. Even with the desire and the ability, the lack of current systems to accomplish the goals is lacking the ability to properly document the process.

The lack of an Enterprise Architecture (EA), by the Services, limits their ability to provide complete relevant and accurate data for the POM process. The data for the Services needs to be complete in order to ensure they are not missing thousands of pieces of equipment. "One area that has contributed to this long-standing problem has been DoD's inability to maintain control and accountability over hundreds of billions of dollars of assets. DoD plans to improve its asset management through its business system modernization." The relevance of the data is important because if the data is not accurate, then it becomes irrelevant in requesting dollars in the POM. The trust in the data has to be maintained in order for the Services to rely and use the data. The dominate form of government is that if Congress can rely and have confidence that the data provided to them is complete and accurate, then they will ensure it is relevant for providing the funds necessary in the POM. The strategic importance for the continuous flow of money is important to maintaining the flow of modern equipment for both the training of troops and the theater of operations.

The procurement process requires the use of multiple bids before a contract can be put into place; this enables DoD to get the best deal for the equipment being purchased. When the need for equipment is rushed and the process is passed, sole source contracts are sometimes used. Many times this provides a quality product for the dollars spent and other times it does not. The Marines, for example, awarded some contracts using sole source contracts.

The Marine Corps Systems Command awarded sole-source contracts to Force Protection, Inc., for the Joint Explosive Ordnance Disposal Rapid Response Vehicle even though Marine Corps Systems Command officials knew other sources were available for competition. In addition, TACOM Life Cycle Management Command and Marine Corps Systems Command officials did

not adequately justify the commercial nature of three commercial contracts with Force Protection, Inc., for the Cougar and the Buffalo Mine Protected Clearance Vehicle. As a result, the Marine Corps Systems Command continued to award contracts for armored vehicles to Force Protection, Inc., even though Force Protection, Inc., did not perform as a responsible contractor and repeatedly failed to meet contractual delivery schedules for getting vehicles to the theater. In addition, TACOM Life Cycle Management Command and Marine Corps Systems Command decisions to award commercial contracts to Force Protection, Inc., may have limited the Government's ability to ensure it paid fair and reasonable prices for the contracts. ¹⁶

The most efficient use of funds is essential. The processes used and still needed for the accounting of equipment are essential for the wellbeing of the DoD equipment. The inability to use the limited dollars wisely is not something the Services or this country can afford to continue now or in the future.

Recommendations

Recommendations for change are essential to ensuring the full implementation of the funding available and its use while it is still available. The accounting strategy, funding policy, and accountability for procurement are all major factors that need improvement for the timely and accurate use of the available funding.

Develop and Implement an Accounting Strategy

Each military Service runs its own supply chain systems and has its own processes for placing orders and moving inventory to warfighters. But over the past two decades, each has struggled, with moderate success, to transform age-old logistics capabilities. During this time period, government oversight groups have issued countless reports criticizing the Department of Defense and it's Services and agencies for a deluge of logistics management challenges, ranging from an inadequate supply of spare parts and backlogged cargo shipments to an inability to track shipments at the distribution centers.¹⁷

The different Services all have processes for dealing with supply chain management; they are similar but still very different. The Services have systems that are currently not designed to interface with the other Services. Each of the Services uses their own system and feels their system is the best system. The synchronization of radio frequency identification (RFID) is a move in the right direction.

The military is already one of the leaders in using RFID technology. Currently all pallets sent to the Gulf and Afghanistan are tagged. Containers are tracked around the world using active (battery-powered) tags from Savi Technology. The DOD would apparently like to have suppliers tag not just pallets and cases, but also put active tags on containers and eventually Global Positioning Systems (GPS) devices on all shipments to provide perfect visibility. ¹⁸

The use of the RFID provides the military information about big ticket items and what is in each of the containers. The current plan will have businesses that provide equipment to the military put the RFID tags on their equipment. Again, this is a step in the right direction and does provide information on most of the items in the force, but it does not address those that are not big ticket items, like the advanced combat helmet (ACH) or the interceptor body armor (IBA). Both are part of the Rapid Fielding Initiative (RFI) that still needs to be counted and tracked. The dollars associated with ACH and IBA are low in respect to higher priced equipment like tanks, ships or airplanes. Since the Services need large quantities of ACH and IBA for each of the Soldiers, the cost grows exponentially because of the total quantity needed.

Businesses outside the military like FedEx or UPS can track shipments throughout the country with the ease of the computer and can tell exactly where the package is, where it is shipped from, when it will arrive, and who signed for the package with a simple tracking number. This number is unique for the package the customer is shipping. The unique identifier (UID) is important in order to provide information on each different item. The UID when associated with the RFID could produce countless amounts of information on each item or piece of equipment. A Soldier could have UID and RFID applied and walk through a scanning device similar to airport security machines and have all their information to include a pre-combat check, completed for the proper equipment. For the equipment, it provides information on maintenance, inventory, location, and owners. "Some key logistics systems and initiatives that the Business Transformation Agency (BTA) is pushing across the department are the Logistics Master Data (LMD) program, radio frequency identification (RFID), and the transition from military standards to commercially based EDI or XML standards." 19

BTA is aiming to transform DoD's supply chain information environment by:

• Improving data integrity and visibility;

- Improving process efficiency of shipping, receiving and inventory management by enabling hands-off processing of materiel transactions;
- Improving logistics planning, forecasting and replenishment activities by increases collaboration between all levels of the department;
- Uniquely identifying property and materiel to improve the time and flow of materiel in support of deployed forces; and
- BTA has found the key to supply chain improvement is in its standards.²⁰

BTA along with the systems already in place will provide the leadership the needed information on inventory in the system and the amount still needed. OSD has a policy—DoDI 5000.64, dated November 2, 2006²¹—that implemented this UID policy immediately by each of the Services. The Services are working on the UID policy. The need for the Services to be interoperable is still a priority and even if the Services are successful with their inventory solutions, the leadership will still lack the ability to get TAV with a push of a button. The time frame for the implementation even though it is immediate, takes the Services time to implement. The policy is written and states that only equipment with a threshold of over \$5000 needs to conform to the policy and adhere to the accountability. The items that cost less than the threshold will still be an issue needing to be addressed because of the possibility of a lack of accountability.

Bandwidth becomes a problem that continues to grow as the amount of data and the digital continuum follows. The digital abilities, that now touches almost every Soldier, have continued to be a problem as long as the need for wide bandwidth increases and the available bandwidth size is limited not only in size but in number of users that will fill the network with their priority systems. The current user database system for the Army is called Property Book Unit Supply Enhanced (PBUSE), which combines all the information submitted by the units into a single database called the Logistic Integrated Warehouse (LIW). The reports will hardly be accessible without using fast office networks; LIW is very slow when trying to produce large reports for the entire Army even using fast office network lines.

The speed and bandwidth of the network is important in today's digital society. The use and ability to access a secure website is important and necessary for the security of the forces both here and abroad. The addition of security complicates the network in order to validate the user and the needed data. A secure network provides the user useful

and needed data without compromising the data and allowing it in the hands of the enemy. Unfortunately, the security of the network also makes it more difficult to share the data with the fellow Services even if the databases could talk to each other.

The data needs to be provided using a web-based product that does not use too much band width while still providing the needed data for the command to make tactical decisions and assist the troops in the field. The dynamic of the data is necessary to provide information not just for a local unit but for all of the Services. Currently in theater, the digital battlefield is decremented by the amount of bandwidth available to the warfighter not to mention the secondary priority of the logistics personnel trying to capture the equipment they receive. If the units don't put the equipment on their property books, then the databases cannot capture the correct information. The units may also delay the process because of a lack of bandwidth, because of command emphasis to provide equipment rapidly, or because of lack of time. All the reasons are valid and provide incomplete data for leadership to make decisions. Policies are in place to dictate the correct process, but often take a second seat to the warfighting priority.

The supply chain management for the different Services is intended to provide important information on the equipment. Each Service has its own process for dealing with supply chain management, but these systems are not designed to interface with the other Services. Hence, their basic supply chain management is not wrong, only different for each Service. Each of the Services uses their own system and feels their system is the best system.

In this regard, General Fund Enterprise Business System (GFEBS), the Global Combat Support System-Army (GCSS-Army), and Logistics Modernization Program (LMP) are aimed at achieving TAV within the Army. The Army estimates that it will invest approximately \$5 billion to develop and implement these systems. However, this investment is being made without a clear integrated strategy.²²

The use of these systems allows the systems to mature and continue to improve. The strategy for the systems has to be in place in order to provide a clear direction for the money to be used most effectively. "GFEBS is a web-based system that will allow the US Army to share financial and accounting data across the Service." The use of the business systems will provide the user the ability to account for the financial transactions

across the Services. The procedure and process of GFEBS will have to be a policy in order to have the authority and force the Services to be on the same sheet of music. Unfortunately, most are reluctant to adapt to change and will not move in that direction unless a policy is in place forcing the change. The change of the policy will direct the change in the procedure thus enabling the accounting process. The accounting process aids in the best use of the funds.

Change the Process for the Funding

Provide Guidance and Policy

Providing funding for the requirements of the Services is a priority. The Services should be able to provide their true requirement without a ceiling or cap for the amount of dollars that can be requested. The true requirement will enable the Congress to determine if the amount of funding is acceptable or if the risk is appropriate for the military. Congress deserves to have complete information to properly accomplish their mission of addressing the budget and spreading the funds where it is deemed most beneficial. By providing the complete information, Congress can then get a real picture of the needs of DoD. Congress should base the amount of spending for DoD on a fixed percentage of the GDP, unlike the rapidly diminishing percentage that has been shrinking and predicted to continue the downward trend. The Services could then split up the funds using a formula based on the amount of requirements and the size of their force.

The "2007 personnel end strength in thousands for the Army is 512, Navy is 341, Marine is 180 and Air Force is 334." This equates to a percentage breakdown in the total force of 38 percent for the Army, 25 percent for the Navy, 13 percent for the Marines and 24 percent for the Air Force. The costs for the total requirements needed for each of the Services would also be given a percentage. An example only, if the shortage for the required equipment is \$250 B for the Army, \$500 B for the Navy, \$150 B for the Marines, and \$300 B for the Air Force; the percentages would be 21 percent for the Army, 41 percent for the Navy, 13 percent for the Marines and 25 percent for the Air Force. Combined average for the personnel end strength and the total requirements needed would be 30 percent for the Army, 33 percent for the Navy, 13 percent for the

Marines, and 25 percent for the Air Force. The combined average would be the percentage of the approved budget each of the Services could expect to receive, which if the percentage of the GDP was set and constant, each of the Services could have a solid plan both with the amount of money and the consistency of the funds every year. The funding guidance and policies will assist the Services in their ability to procure the needed equipment for their Soldiers. The policies in the funding process will help guide and produce results in the procurement process.

Synchronize the Procurement Process

The funding will probably never be enough, but the best use of the funds during the procurement process is essential. Synchronizing the procurement processes could assist in the best use of the funding. The use of one funding stream to purchase and provide identical items for each of the Services instead of each of the Services having their own funding could standardize the equipment and use the best solution for similar items. What is good for one Service should be good for the next. The discounts received for the larger quantities purchased will provide more purchasing power and make better use of the funds available. Synchronization of the funds could also lead to less duplication of effort among the Services; one joint Service could for instance provide all the wheel vehicles for all the Services and so forth.

This synchronization process could provide personnel savings and open up office space. The current amount of personnel required to provide the Services a piece of equipment is one from each of the Services, six total personnel (ARNG, USAR, AC, Navy, Marines, and Air Force). Synchronizing the procurement process could adjust the amount of personnel to just one or two total personnel working on the system. The personnel savings is around four personnel; these personnel could then be sent back to the field units and provide assistance for the warfight. The personnel savings also saves office space; the Pentagon is already limited in office space. The personnel savings of four to five spaces per common system would lead to extra space left over. The example is for the system's integration of the piece of equipment, not to mention the acquisition, logistics and other common areas.

Synchronization does not just save limited funds, but also saves in personnel costs and the associated cost for office space. The savings from synchronization could be put to better use and provide more equipment for the units and their Soldiers. More equipment means more emphasis on accounting procedures. Accountability is not just a word; it is a way of life and has the upmost priority.

Improve the Accountability of Funds Spent

Improving the accountability of the expenditures is a top priority. Many methods are required for the improvement. One method is the use of UID for the items of equipment. The UID associated with each piece of equipment is essential for providing the necessary information. The important information about each of the pieces of equipment is procurement of the system, what funding source provided the funds, and which Service the equipment is to be provided. The important details will provide the leadership with the correct and accurate information for the amount of funding still needed in the POM. Currently, the UID is not provided until after the equipment comes off of the assembly line. The more advantageous method could be to provide the UID while the piece of equipment is still in the planning or the production line. This method could assist in not losing its identity and the ability to provide congress with more complete reports of where the dollars are being spent.

The funding UID should include the funding source. For example, it needs to know if it is part of the base budget or supplemental funding. Another important detail is what year the funding is appropriated and for what Service and/or component the funding is intended to be used. All this information will be advantageous to DoD because, when the equipment comes off the production line, it will enhance the ability to provide the needed reports dictated by Congress. The ability to account for the funds will enable the managers of the piece of equipment to track the procurement progress, provide for the needs of the Services, and produce the reports for the shortages still remaining in the units. The funding will provide the needed equipment and limit the duplication of requests for additional funding.

Synchronize All Components of the Army

The funding being spent for the Army has increased over the last few years and more of those dollars are being spent on the reserve components. The dollars being spent for the Army National Guard (ARNG) and the Army Reserve (AR) is difficult to track; dollars earmarked for one of these two Services can sometimes be redirected without even a stroke of a pen. The two reserve components of the Army are scheduled to receive more dollars for equipment than they have ever had in a single year. The ability of the ARNG to track the execution of the equipment is difficult, there are various reasons for the difficulty, first is the procurement dollars being spread over many years, second is the Program Managers sometimes sending equipment directly to the units thus bypassing the United States Property and Fiscal Office (USPFO), which is supposed to "receive and account for all funds and property of the United States in the possession of the National Guard."25 Next, when the equipment is sent to a unit, the equipment is often rapidly transferred to support a deploying unit's needs. This is often so rapid that the paperwork takes many months to catch up. Last is the large amount of equipment being fielded to the units. The large amount of equipment requires supply personnel to input the information into the systems in order to track the receipt of equipment. There is a lack of these full-time logistical personnel, which makes it difficult to track the equipment and the accuracy in the process.

There are many solutions being presented, with some being commercial off-the-shelf (COTS) and others being military systems. The sooner the correct solution can be implemented the sooner the inventory, funding solution and future allocation of dollars to programs needed for the different Services can be addressed. Waiting until at least 2010 for the solution to be in place means that the Services will have gone through two additional POM cycles and the prediction of the percent of the funding associated with the GDP will be down, it is an important and critical time to produce the results sooner than later. Synchronizing the two reserve components of the Army is essential in improving the visibility of equipment and the best use of the available funding. The Army and its two reserve components are a great asset to DoD and will continue to provide a critical need for the country and remain a valuable asset.

Conclusion

"The DoD established a goal to achieve total asset visibility (TAV) over 30 years ago." A goal has to have a ways, means, and end in order to be achieved. DoD cannot look back twenty years from now and state that they established a goal to achieve TAV over 50 years ago or even 40 years ago. The dollars have to be counted and used towards continuing the best military in the world. Change must be quick and efficient if limited funding is to be used wisely.

The changes using my recommendations, if implemented, will need follow-on examination and possibly future research to completely modify and provide the correct methods required for adequate accountability of DoD procured equipment.

Accurate Property Accountability is every leader's responsibility and essential to meeting the demands of the war on terrorism and Army readiness. The lack of property accountability of the Army's equipment impacts the ability to resupply, refit, and generate forces. Having accountability procedures in place helps ensure the men and women has the best equipment possible to accomplish their mission.²⁷

The process in place will not ensure the accuracy of the data, only trained Soldiers and a process to validate the accuracy will substantiate the data. Further research will also be needed in the future to determine if the planned solution will accommodate all of the Services needs and provide an accurate database capable of producing the needs of the military.

Endnotes:

- ¹ McCoy Williams, Keith A Rhodes, and William M. Solis, "Lack of an Integrated Strategy Puts the Army's Asset Visibility System Investments at Risk," GAO Report to the Subcommittee on Readiness and Management Support, Committee on Armed Service, US Senate, July 2007, p. 2.
- ² Gary J. Schmitt and Thomas Donnelly. *Of Men and Materiel: The Crisis in Military Resources*. Washington DC: American Enterprise Institute for Public Policy Research, 2007.
- ³ G-8–Office of the Deputy Chief of Staff for Programs, Programs and Priorities Division (FDR), "AC/ARNG/USAR Resourcing/Strategy," 2007.
- ⁴ Gary J. Schmitt and Thomas Donnelly. *Of Men and Materiel: The Crisis in Military Resources*. Washington DC: American Enterprise Institute for Public Policy Research, 2007, p. 28.
- ⁵ OSD Comptroller, Prof. Harold Lord, "The Planning Process," *How The Army Runs (HTAR) A Senior Leader Reference Handbook, 25th Edition*, Chapter Nine, 2005–2006, (Last updated 24 March 2006), http://www.defenselink.mil/comptroller/icenter/budget/progphase.htm.
- ⁶ OSD Comptroller, Prof. Harold Lord, "The Programming Phase," *How The Army Runs (HTAR) A Senior Leader Reference Handbook*, 25th Edition, Chapter Nine, 2005–2006 (Last updated 24 March 2006), http://www.defenselink.mil/comptroller/icenter/budget/progphase.htm.
- ⁷ OSD Comptroller, Prof. Harold Lord, "The Programming Phase," *How The Army Runs (HTAR) A Senior Leader Reference Handbook*, *25th Edition*, Chapter Nine, 2005–2006 (Last updated 24 March 2006), http://www.defenselink.mil/comptroller/icenter/budget/progphase.htm.
- ⁸ OSD Comptroller, Prof. Harold Lord, "The Budgeting Phase," *How The Army Runs (HTAR) A Senior Leader Reference Handbook, 25th Edition*, Chapter Nine, 2005–2006 (Last updated 24 March 2006), http://www.defenselink.mil/comptroller/icenter/budget/budgphase.htm.
- ⁹ OSD Comptroller, Prof. Harold Lord "The Budgeting Phase," *How The Army Runs (HTAR) A Senior Leader Reference Handbook*, *25th Edition*, Chapter Nine, 2005–2006 (Last updated 24 March 2006), http://www.defenselink.mil/comptroller/icenter/budget/budgphase.htm.
- ¹⁰OSD Comptroller, Prof. Harold Lord, "The Budgeting Execution Phase," *How The Army Runs* (*HTAR*) A Senior Leader Reference Handbook, 25th Edition, Chapter Nine, 2005–2006 (Last updated 24 March 2006), http://www.defenselink.mil/comptroller/icenter/budget/budgexecution.htm.
- ¹¹ Executive Office of the President, Office of Management and Budget, "Preparation, Submission, and Execution of the Budget," 2004, Circular Number A–11, Section 20–12, p 56, http://www.whitehouse.gov/omb/circulars/a11/current_year/a_11_2004.pdf.
- ¹² Executive Office of the President, Office of Management and Budget, "Preparation, Submission, and Execution of the Budget," 2004, Circular Number A–11, Section 110-2, p 322, http://www.whitehouse.gov/omb/circulars/a11/current_year/a_11_2004.pdf.
- ¹³ Gary J. Schmitt and Thomas Donnelly. *Of Men and Materiel: The Crisis in Military Resources*. Washington DC: American Enterprise Institute for Public Policy Research, 2007, p 28.
- ¹⁴ Joseph A. Christoff, Nanette J. Barton, Lynn Cothern, Martin De Alteriis, Mattias Fenton, Mary Moutsos, Jason Pogacnik, David Bruno, Monica Brym, and Brent Helt, "DOD Cannot Ensure That US-Funded Equipment Has Reached Iraqi Security Forces," GAO-07-711, July 2007, http://www.unbossed.com/index.php?itemid=1649.

- ¹⁵ Joseph A. Christoff, Nanette J. Barton, Lynn Cothern, Martin De Alteriis, Mattias Fenton, Mary Moutsos, Jason Pogacnik, David Bruno, Monica Brym, and Brent Helt, "DOD Cannot Ensure That US-Funded Equipment Has Reached Iraqi Security Forces," GAO-07-711, July 2007, http://www.unbossed.com/index.php?itemid=1649.
- ¹⁶ Department of Defense Office of Inspector General, "Procurement Policy for Armored Vehicles," Report No. D-2007-107, (Project No. D2006-D000CK-0210.000), June 27, 2007, http://www.dodig.mil/Audit/reports/FY07/07-107.pdf.
- ¹⁷ Dawn S. Onley, "Improving Materiel Visibility," Military Logistics Forum, Volume: 1 Issue: 1, Feb 21, 2007, http://www.military-logistics-forum.com/print_article.cfm?DocID=2065.
 - ¹⁸ Claire Swedberg, "US Military to Issue RFID Mandate," *RFID Journal*, Sept. 15, 2003.
- ¹⁹ Dawn S. Onley, "Improving Materiel Visibility," *Military Logistics Forum*, Volume: 1 Issue: 1, Feb 21, 2007, http://www.military-logistics-forum.com/print_article.cfm?DocID=2065.
- ²⁰ Dawn S. Onley, "Improving Materiel Visibility," *Military Logistics Forum*, Volume: 1 Issue: 1, Feb 21, 2007, http://www.military-logistics-forum.com/print_article.cfm?DocID=2065.
- ²¹ Under Secretary of Defense, Acquisition, Technology, and Logistics, "Accountability and Management of DoD-Owned Equipment and Other Accountable Property," *Number 5000.64*, November 2, 2006.
- ²² McCoy Williams, Keith A Rhodes, and William M. Solis, "Lack of an Integrated Strategy Puts the Army's Asset Visibility System Investments at Risk", GAO Report to the Subcommittee on Readiness and Management Support, Committee on Armed Service, US Senate, July 2007, p. 2.
- ²³ John L. Miller, "Department of the Army: General Fund Enterprise Business System: GFEBS Marches to the Forefront as Demonstrations Showcase its Business Process Improvement Potential," 2007, http://www.entrepreneur.com/tradejournals/article/159963709.html.
- ²⁴ Office of the Under Secretary of Defense (Comptroller), "National Defense Budget Estimate for FY 2007," March 2006.
- ²⁵ Office of the Chief, National Guard Bureau, "United States Property and Fiscal Office for New Mexico," Nov/Dec 2007. **Office for New Mexico U**
- ²⁶ McCoy Williams, Keith A Rhodes, and William M. Solis, "Lack of an Integrated Strategy Puts the Army's Asset Visibility System Investments at Risk", GAO Report to the Subcommittee on Readiness and Management Support, Committee on Armed Service, US Senate, July 2007, p. 2.
- ²⁷ G-4–Office of the Deputy Chief of Staff for Logistics (ODCSLOG), "Initiatives to Improve Property Accountability," Army Posture Statement 2007(G-4) Addendum I (Enhance Logistics Readiness) http://www.hqda.army.mil/logweb/Property Accountability.pdf.